

Appendix Table 1: Percentage of U.S. population living in zip code tabulation area (ZCTA) with community-based specialty mental health (MH) treatment resources

	Any MH treatment facility providing outpatient care	Any office- based practice: MH specialist physician	Any office-based practice: MH specialist non-physician	Any community- based MH treatment resource
	%	%	%	%
% of population living in ZCTA with ≥ 1 MH treatment resource	36.9	40.1	55.2	70.3
% of population living in ZCTAs (classified by median household income) with ≥ 1 MH treatment resource in ZCTA				
First quartile (mean=\$30,534)	46.6	29.3	42.0	65.1
Second quartile (mean=\$42,999)	45.2	34.5	50.7	67.5
Third quartile (mean=\$53,542)	37.1	38.6	54.1	68.2
Fourth quartile (mean=\$81,207)	26.5	50.4	65.9	76.3
% of population living in ZCTAs (classified as urban/suburban or rural), with ≥ 1 MH treatment resource in ZCTA				
% of Residents living in Rural areas	32.9	6.9	15.5	40.1
% of Residents living in Urban/Suburban areas	37.1	41.7	57.1	71.7
% of Population living in ZCTA with ≥ 1 MH treatment resource or within 10 Miles of ZCTA with ≥ 1 MH treatment resource^a	91.6	84.6	90.3	95.0
% of population living in ZCTAs (classified by median household income) with ≥ 1 MH treatment resource in ZCTA or within 10 miles of a ZCTA with ≥ 1 MH treatment resource ^a				
First quartile (mean=\$30,534)	90.4	77.5	84.5	94.9
Second quartile (mean=\$42,999)	91.1	78.5	87.5	95.5
Third quartile (mean=\$53,542)	91.9	85.8	92.6	96.0
Fourth quartile (mean=\$81,207)	92.2	91.5	93.5	94.2
% of population living in ZCTAs (classified as urban/suburban or rural), with ≥ 1 MH treatment resource in ZCTA or within 10 miles of a ZCTA with ≥ 1 MH treatment resource ^a				
% of Residents living in Rural areas	73.5	28.3	49.2	82.7
% of Residents living in Urban/Suburban areas	92.4	87.3	92.2	95.6

Note: ^a To calculate these percentages, we created a 10-mile buffer around each ZCTA's centroid to identify those who lived in a ZCTA with a MH treatment resource or close to another ZCTA with a MH treatment resource that intersected this 10-mile buffer.

Appendix Table 2: Generalized ordered logistic regression results examining the association between Zip Code Tabulation Area (ZCTA) characteristics and the availability of MH treatment facilities providing outpatient care or community-based specialty mental health (MH) treatment resources

	MH treatment facility providing outpatient care in ZCTA [†]				Community-based MH Treatment Resource [±]			
	1 or more (versus 0)		2 or more (versus <2)		1 or more (versus 0)		2 or more (versus <2)	
	OR	[95% CI]	OR	[95% CI]	OR	[95% CI]	OR	[95% CI]
Median household income								
First quartile		Ref		Ref		Ref		Ref
Second quartile	0.91	[0.81,1.02]	0.80	[0.67,0.95]	0.95	[0.84,1.06]	0.93	[0.82,1.07]
Third quartile	0.63	[0.55,0.72]	0.54	[0.44,0.67]	0.97	[0.85,1.10]	1.04	[0.90,1.21]
Fourth quartile	0.43	[0.37,0.51]	0.35	[0.27,0.45]	1.73	[1.49,2.01]	2.38	[2.00,2.83]
Rural/urban area								
Rural		Ref		Ref		Ref		Ref
Urban/suburban	0.38	[0.33,0.43]	0.66	[0.51,0.86]	0.54	[0.48,0.61]	0.72	[0.61,0.86]
% of residents that are Black								
Less than 1		Ref		Ref		Ref		Ref
1 – 9	0.99	[0.88,1.11]	1.30	[1.06,1.60]	1.13	[1.03,1.24]	1.09	[0.97,1.22]
10 – 24	0.86	[0.71,1.04]	1.07	[0.80,1.44]	0.91	[0.76,1.08]	0.74	[0.61,0.90]
25 – 49	0.64	[0.50,0.83]	0.89	[0.62,1.28]	0.53	[0.41,0.68]	0.46	[0.35,0.61]
50 or more	0.34	[0.25,0.47]	0.25	[0.15,0.41]	0.25	[0.18,0.34]	0.11	[0.08,0.16]
% of residents that are Hispanic								
Less than 1		Ref		Ref		Ref		Ref
1 – 9	1.22	[1.06,1.41]	1.35	[1.02,1.79]	1.32	[1.17,1.48]	1.61	[1.35,1.92]
10 – 24	1.23	[1.00,1.51]	1.52	[1.07,2.17]	0.94	[0.78,1.14]	1.20	[0.95,1.52]
25 – 49	1.22	[0.93,1.60]	1.31	[0.86,2.00]	0.78	[0.60,1.01]	1.13	[0.84,1.52]
50 or more	0.62	[0.42,0.90]	0.71	[0.38,1.31]	0.50	[0.36,0.71]	0.66	[0.44,0.98]
% of residents under age 20 ^a	0.88	[0.81,0.96]	0.68	[0.59,0.78]	0.64	[0.59,0.70]	0.54	[0.49,0.59]
% of residents over age 64 ^a	1.53	[1.39,1.68]	1.50	[1.28,1.77]	1.40	[1.29,1.52]	1.48	[1.34,1.64]
% of residents who are female ^a	1.02	[0.94,1.10]	1.15	[0.99,1.34]	1.31	[1.23,1.41]	1.48	[1.35,1.63]
% of residents who are married ^a	0.51	[0.47,0.55]	0.44	[0.38,0.50]	0.52	[0.48,0.56]	0.43	[0.39,0.47]
Total population (logged)	4.30	[4.08,4.54]	5.23	[4.75,5.75]	5.47	[5.22,5.74]	6.86	[6.46,7.28]
Land area ^a	1.30	[1.24,1.35]	1.22	[1.13,1.33]	1.16	[1.11,1.21]	1.03	[0.97,1.10]

Notes: N=31,836 ZCTAs; Results come from generalized ordered logistic regression models that included all measures in the table as well as state indicators. [†]The percentage of ZCTAs with 1 MH treatment facility is 10.0%, and the percentage with 2+ MH treatment facilities is 4.9%. [±]The percentage of ZCTAs with 1 community-based MH treatment resources is 10.7%, and the percentage with 2+ community-based MH treatment resources is 18.6%. ^aContinuous measure was standardized.

Appendix Table 3: Generalized ordered logistic regression results examining the association between Zip Code Tabulation Area (ZCTA) characteristics and the availability of office-based practices of mental health (MH) specialist providers

	Office-based practice (MH specialist physician) in ZCTA [†]		Office-based practice (MH specialist non-physician) in ZCTA [±]	
	1 or more (versus 0)	2 or more (versus <2)	1 or more (versus 0)	2 or more (versus <2)
	OR [95% CI]	OR [95% CI]	OR [95% CI]	OR [95% CI]
Median household income				
First quartile	Ref	Ref	Ref	Ref
Second quartile	1.10 [0.96,1.28]	1.12 [0.92,1.37]	1.03 [0.91,1.17]	0.84 [0.72,0.99]
Third quartile	1.36 [1.16,1.59]	1.53 [1.23,1.89]	1.30 [1.13,1.50]	1.34 [1.13,1.60]
Fourth quartile	3.02 [2.52,3.63]	4.65 [3.65,5.94]	2.75 [2.34,3.24]	3.28 [2.69,4.01]
Rural/urban area				
Rural	Ref	Ref	Ref	Ref
Urban/suburban	1.05 [0.84,1.31]	1.88 [1.04,3.41]	1.01 [0.86,1.18]	1.24 [0.93,1.64]
% of residents that are Black				
Less than 1	Ref	Ref	Ref	Ref
1 – 9	1.14 [1.01,1.30]	1.10 [0.92,1.31]	1.13 [1.02,1.26]	1.12 [0.97,1.29]
10 – 24	0.82 [0.66,1.01]	0.77 [0.58,1.01]	0.83 [0.68,1.00]	0.71 [0.57,0.90]
25 – 49	0.44 [0.33,0.59]	0.36 [0.24,0.53]	0.45 [0.35,0.59]	0.35 [0.25,0.48]
50 or more	0.17 [0.11,0.25]	0.04 [0.02,0.09]	0.14 [0.10,0.20]	0.09 [0.05,0.14]
% of residents that are Hispanic				
Less than 1	Ref	Ref	Ref	Ref
1 – 9	1.57 [1.29,1.90]	2.86 [1.80,4.55]	1.53 [1.32,1.77]	2.07 [1.58,2.72]
10 – 24	1.06 [0.82,1.37]	2.18 [1.31,3.60]	0.93 [0.75,1.15]	1.27 [0.92,1.75]
25 – 49	0.92 [0.67,1.26]	1.72 [0.98,3.01]	0.67 [0.51,0.88]	0.83 [0.56,1.21]
50 or more	0.67 [0.44,1.02]	1.50 [0.79,2.86]	0.66 [0.46,0.95]	0.77 [0.48,1.23]
% of residents under age 20 ^a	0.57 [0.51,0.63]	0.51 [0.45,0.59]	0.58 [0.53,0.63]	0.52 [0.46,0.58]
% of residents over age 64 ^a	1.37 [1.24,1.51]	1.38 [1.21,1.57]	1.22 [1.11,1.34]	1.29 [1.15,1.44]
% of residents who are female ^a	1.45 [1.31,1.60]	1.67 [1.43,1.95]	1.41 [1.30,1.53]	1.56 [1.37,1.76]
% of residents who are married ^a	0.54 [0.49,0.60]	0.42 [0.37,0.48]	0.55 [0.51,0.60]	0.45 [0.41,0.50]
Total population (logged)	4.38 [4.13,4.64]	4.97 [4.56,5.42]	4.58 [4.35,4.81]	5.72 [5.34,6.13]
Land area ^a	0.70 [0.62,0.79]	0.58 [0.47,0.71]	0.97 [0.91,1.03]	0.86 [0.78,0.94]

Notes: N=31,836 ZCTAs; Results come from generalized ordered logistic regression models that included all measures in the table as well as state indicators. [†]The percentage of ZCTAs with 1 office-based practice of MH specialist physicians is 7.2%, and the percentage with 2+ office-based practices of MH specialist physicians is 6.7%. [±]The percentage of ZCTAs with 1 office-based practice of MH specialist non-physicians is 9.1%, and the percentage with 2+ office-based MH specialist non-physicians is 11.8%. ^aContinuous measure was standardized.